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ABSTRACT

The summary report "Statewide Test Results, Summary Report, Spring 1989" provided educators and the general public with information about the Delaware Educational Assessment Program (DEAP) and the performance of Delaware public school students on the Stanford Achievement Test, Eighth Edition (Stanford 8). This appendix disaggregates the state-level test data to provide a better picture of how various subgroups of students performed on the statewide tests. The objective is to identify some of the inequities that need to be addressed. A total of 58,371 students in grades 1 through 8 and grade 11 from 17 districts completed the basic battery. Scores are reported by: (1) sex; (2) racial and ethnic category (White, Black, Hispanic, Asian/Pacific Islander, American Indian/Alaskan Native, or unspecified); (3) special education and handicapping condition (educable mentally handicapped, socially-emotionally maladjusted, or learning disabled); and (4) Chapter 1 (educationally disadvantaged) status. Student identification information was extracted from a tracking file maintained by the DEAP. Scores are reported in Normal Curve Equivalents and are provided for total reading, total language, total mathematics, thinking skills, and basic battery. Students in grade 11 were asked to identify their current high school program as college preparatory, vocational, or general. Fourteen tables and three bar graphs present the student data. (SLD)

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INTRODUCTION

This report is intended as an appendix to the publication entitled Statewide Test Results, Summary Report, Spring 1989. The purpose of the summary report was to provide educators and the general public with information about the Delaware Educational Assessment Program and the performance of Delaware public school students on the Stanford Achievement Test, Eighth Edition (Stanford 8). The purpose of this Appendix to the Statewide Test Results Summary Report, Spring 1989 is to disaggregate the state level test data so as to provide a better picture of how various subgroups of students performed on the statewide tests. The objective is to identify some of the inequities that exist and need to be addressed in today's public schools. All students can reach a satisfactory level of achievement in the basic skill areas and it is the task of Delaware educators to develop activities and programs to address this issue.

HOW ARE SCORES REPORTED?

In this appendix, scores and score distributions from the Spring 1989 administration of the Stanford 8 are reported for a variety of subgroups. Scores are reported by sex, racial/ethnic category, special education/ handicapping condition, and Chapter I status for students in grades 1-8 and 11. The percent of students in each quartile is reported by variable at grades 2, 5, 8, and 11. To facilitate this categorization of students, student identification information was extracted from a tracking file maintained by the Delaware Educational Assessment Program and current as of December 1, 1988. Information on Chapter I status of students was collected on student answer documents at the time of testing. In addition, scores for grade 11 students are given based on student self-reporting of their high school programs and their post high school plans. Scores are reported in Normal Curve Equivalents (NCEs) and are provided for Total Reading, Total Language, Total Mathematics, Thinking Skills (grades 3-8 and 11 only), and Basic Battery. The categories employed for reporting purposes are as follows:

Sex:

Average test scores will be reported for males and females.

Special Education/Handicapping Condition:

The state testing program includes special education students with the exception of students in special schools or intensive learning centers. While state policy mandates that all mainstreamed special education students participate in statewide testing, a student can be excluded by his/her IEP team for the following reasons: (1) a severe over-reaction to testing, (2) a moderate to severe learning disability or social/emotional maladjustment, (3) a physical handicap preventing testing, or (4) an inability to speak English.

The overwhelming majority of special education students tested in Delaware are classified as either educable mentally handicapped (EMH), socially-emotionally maladjusted (SEM), or learning disabled (LD). The number of students tested with other handicapping conditions (trainable mentally handicapped, physically-orthopedically handicapped, hearing impaired, blind, and partially sighted) does not exceed five for any one grade for any of the content areas. Therefore, to protect the privacy of individual students, mean scores will be reported only for special education students classified as EMH, SEM, or LD.

Racial/Ethnic Classification:

Average test scores will be reported for each of five different racial/ethnic categories: White, Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaskan native. Since several Delaware school districts did not supply the racial/ethnic classification for a sizable number of students, an "unknown" category is also displayed. Racial classifications are missing, for example, for 7393 (12.7%) of students statewide for whom Basic Battery scores on the Stanford Achievement Test are available. The number and percent of students by district who completed the Basic Battery but had missing racial/ethnic classifications are shown in Table 1, along with the number of students completing the Basic Battery in each district.

Chapter I Status:

Average test scores will be reported for students classified as Chapter I. Chapter I students are educationally disadvantaged students receiving supplementary instruction in reading and/or math, financed by federal funds.

Table 1
Number of Students Completing the Basic Battery of the Stanford Achievement Test and the Number and Percentage of Those Students for Whom Racial/Ethnic Data are Unavailable

District	Students Completing Basic Battery	Student Records Missing Racial/Ethnic Data	
		Number	Percent
Appoquinimink	1,575	67	4.3
Brandywine	6,874	190	2.8
Caesar Rodney	3,949	2,173	55.0
Cape Henlopen	2,367	1,155	48.8
Capital	3,753	200	5.3
Christina	10,746	448	4.2
Colonial	5,724	191	3.3
Delmar	268	9	3.4
Indian River	3,732	128	3.4
Lake Forest	1,904	1,072	56.3
Laurel	1,259	575	45.7
Milford	2,065	92	4.5
NCC Voc-Tech.	564	12	2.1
Red Clay Cons.	8,912	301	3.4
Seaford	1,962	52	2.7
Smyrna	1,780	689	38.7
Woodbridge	937	39	4.2

Program/Post High School Plans:

Students in grade eleven were asked to classify their current high school program as either college preparatory, vocational, or general. Eighty-eight (88%) percent of all grade eleven students tested provided the requested information.

Grade eleven students were also asked to respond to a second question concerning their post high school plans. Students were asked to select one of six choices: a four year college program, a two year college program, employment, military, other, or undecided. Eighty (80%) percent of the grade eleven students tested provided a response. Average test scores will be provided by high school program and by post high school plans for reading, language arts, mathematics, and thinking skills.

Analysis By Variables

Basic Battery Scores

Spring 1989

ANALYSIS BY VARIABLES

BASIC BATTERY

	Grade															
	1		2		3		4		5		6		7		8		11	
Category	N Count	Mean NCE	N Count	Mean NCE	N Count	Mean NCE	N Count	Mean NCE	N Count	Mean NCE	N Count	Mean NCE	N Count	Mean NCE	N Count	Mean NCE	N Count	Mean NCE
STATE																		
Regular	**7569**	**50.6**	**6847**	**55.2**	**6257**	**55.6**	**6294**	**54.4**	**5852**	**54.3**	**5689**	**53.2**	**5522**	**52.9**	**5403**	**53.4**	**4631**	**53.3**
Combined	**7915**	**49.7**	**7312**	**53.4**	**6795**	**53.4**	**6886**	**51.9**	**6424**	**51.4**	**6236**	**50.4**	**6041**	**50.2**	**5880**	**50.7**	**4882**	**51.6**
Sex																		
Male	4099	48.9	3665	52.6	3458	52.7	3471	50.5	3286	49.5	3112	48.1	3093	47.8	2946	48.6	2351	50.8
Female	3815	50.6	3647	54.3	3337	54.2	3415	53.3	3138	53.5	3124	52.8	2948	52.7	2934	52.6	2531	52.3
Racial/Ethnic																		
White	4751	54.3	4541	57.9	4245	57.5	4181	56.1	3900	56.9	3853	54.8	3586	54.3	3721	54.3	3151	54.9
Black	1879	39.0	1645	42.4	1549	42.3	1658	41.3	1531	39.9	1377	39.4	1368	39.5	1195	40.2	851	40.7
Hispanic	169	40.0	161	43.3	130	43.4	162	40.5	142	37.4	116	37.3	116	37.7	108	38.4	70	38.6
Asian	101	60.4	86	67.1	80	65.2	74	69.9	85	70.2	77	68.9	92	68.3	82	67.8	84	59.1
Indian	9	51.3	11	51.7	7	41.9	8	35.1	6	52.9	6	61.9	4	48.0	5	40.8	5	49.4
Unknown	1006	48.9	868	51.6	784	53.7	803	52.7	760	47.5	807	48.4	875	49.6	769	49.9	721	50.4
Special Education																		
EMH	127	31.7	106	28.6	108	30.0	116	25.0	101	18.6	91	19.6	70	19.2	72	19.5	55	17.2
SEM	21	30.3	45	33.9	51	30.5	64	28.7	60	28.6	70	24.8	74	25.3	61	24.2	39	23.9
LD	195	28.0	312	26.8	373	26.4	406	24.1	408	22.6	382	21.8	370	21.1	339	19.4	154	20.7
Chapter I Program																		
Chapter I Students	1676	33.6	1140	38.3	870	35.9	891	35.1	606	32.2	447	33.1	183	32.1	132	34.4	32	32.1

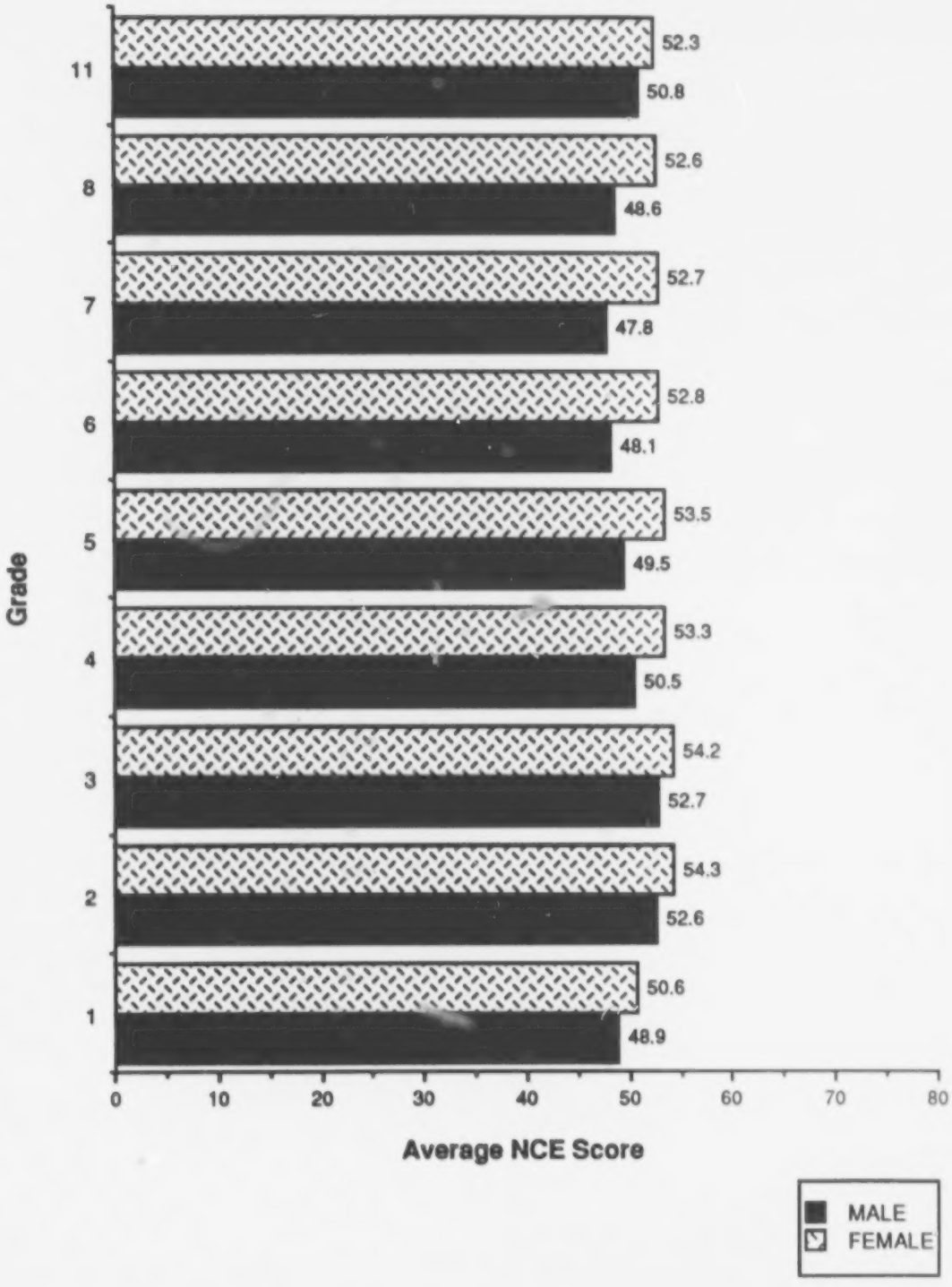
Percent of Students in Each Quartile by Variables
Grades 2 and 5
Basic Battery

	Grade 2				Grade 5			
Quartile	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
National Percentile Score Range	1-25	26-50	51-75	76-99	1-25	26-50	51-75	76-99
NATIONAL	**25.0**	**25.0**	**25.0**	**25.0**	**25.0**	**25.0**	**25.0**	**25.0**
STATE								
Regular	**16.3**	**25.4**	**27.2**	**31.1**	**18.2**	**26.7**	**25.7**	**29.4**
Combined	**19.7**	**25.0**	**26.0**	**29.3**	**23.9**	**25.5**	**23.6**	**26.9**
Sex								
Male	21.0	25.1	26.1	27.8	27.1	26.1	21.8	25.0
Female	18.4	25.0	25.9	30.8	20.4	25.0	25.6	29.0
Racial/Ethnic								
White	13.0	22.7	27.2	37.1	15.3	23.3	26.1	35.3
Black	36.3	30.6	22.6	10.5	41.5	32.0	18.5	8.0
Hispanic	39.1	24.2	26.1	10.6	54.9	18.3	19.0	7.7
Asian	4.7	22.1	22.1	51.2	3.5	14.1	23.5	58.8
Indian	9.1	36.4	27.3	27.3	33.3	33.3	0.0	33.3
Unknown	20.9	27.2	26.6	25.3	28.8	26.7	22.5	22.0
Special Education								
EMH	68.9	16.0	10.4	4.7	87.1	9.9	2.0	1.0
SEM	51.1	28.9	15.6	4.4	70.0	18.3	5.0	6.7
LD	72.4	19.6	6.4	1.6	81.9	14.7	2.9	.5
Chapter I Program								
Chapter I Students	43.9	36.8	16.2	3.1	64.0	29.9	5.6	0.5

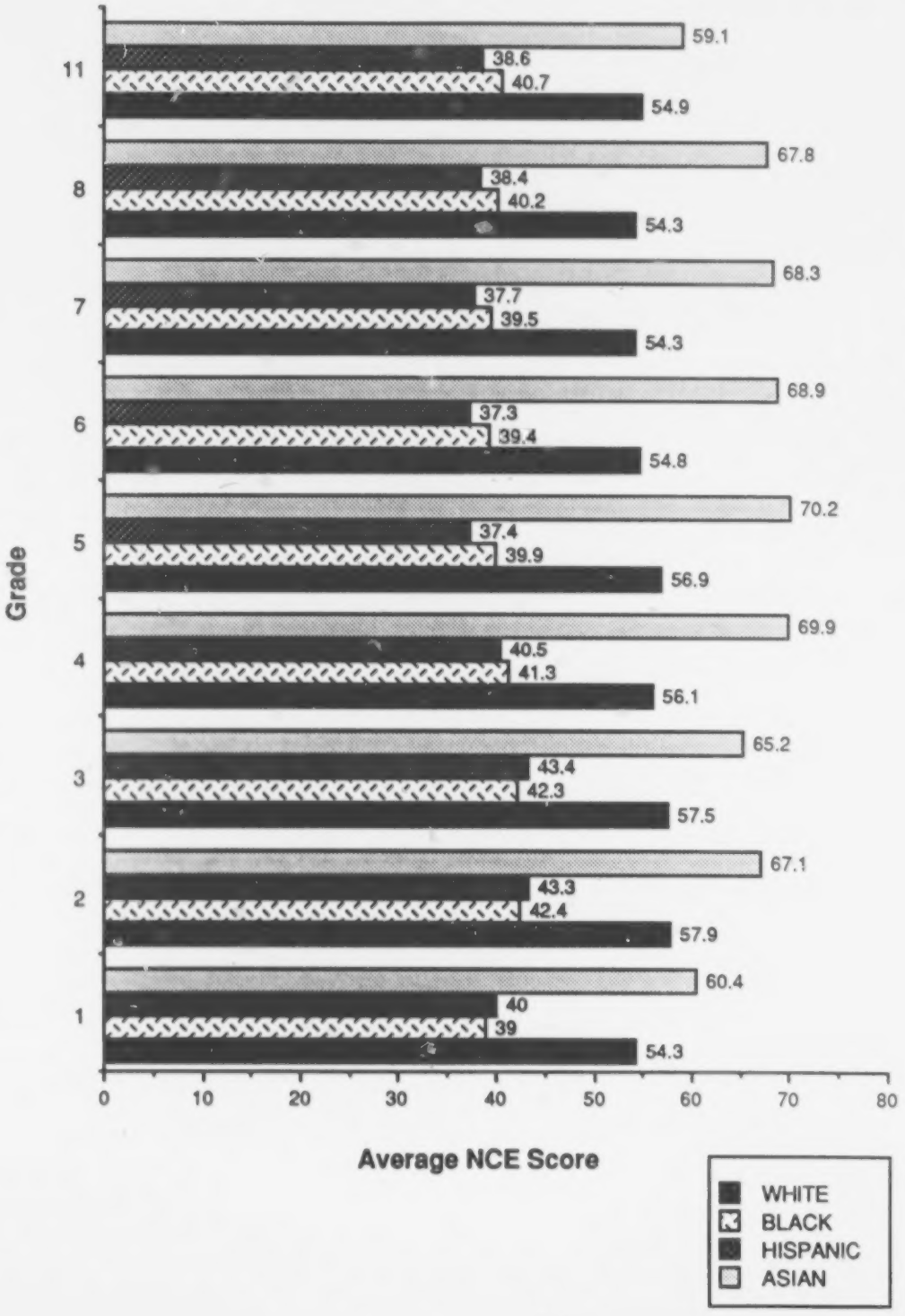
Percent of Students in Each Quartile by Variables
Grades 8 and 11
Basic Battery

	Grade 8				Grade 11			
Quartile	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
National Percentile Score Range	1-25	26-50	51-75	76-99	1-25	26-50	51-75	76-99
NATIONAL	**25.0**	**25.0**	**25.0**	**25.0**	**25.0**	**25.0**	**25.0**	**25.0**
STATE								
Regular	**19.1**	**26.5**	**26.0**	**28.3**	**18.0**	**27.4**	**27.8**	**26.7**
Combined	**24.8**	**25.1**	**24.1**	**26.1**	**21.8**	**26.5**	**26.4**	**25.3**
Sex								
Male	28.5	24.5	23.4	23.6	23.5	26.8	25.5	24.2
Female	21.0	25.6	24.7	28.6	20.2	26.1	27.3	26.4
Racial/Ethnic								
White	18.9	24.0	25.4	31.7	16.2	24.9	28.3	30.6
Black	41.8	27.4	22.2	8.6	39.6	32.8	19.6	7.9
Hispanic	46.3	31.5	10.2	12.0	51.4	28.6	11.4	8.6
Asian	9.8	13.4	15.9	61.0	15.5	17.9	31.0	35.7
Indian	20.0	60.0	20.0	0.0	0.0	60.0	40.0	0.0
Unknown	25.2	26.7	23.4	24.7	23.0	26.4	27.3	23.3
Special Education								
EMH	84.7	6.9	4.2	4.2	92.7	5.5	1.8	0.0
SEM	78.7	14.8	6.6	0.0	82.1	17.9	0.0	0.0
LD	91.7	7.7	0.6	0.0	92.8	7.2	0.0	0.0
Chapter I Program								
Chapter I Students	62.9	24.2	3.8	9.1	62.5	34.4	3.1	0.0

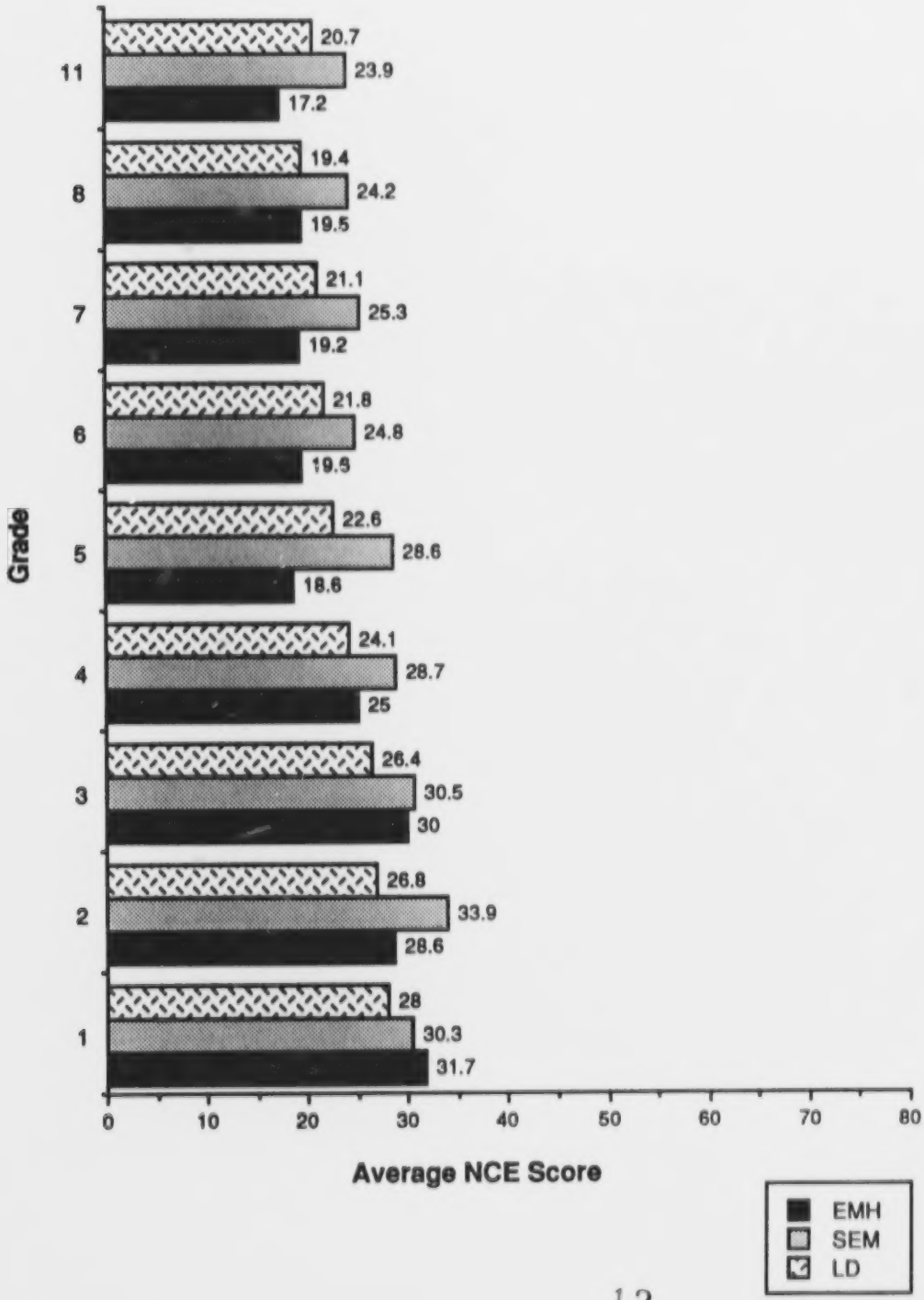
1989 Test Scores by Sex
Basic Battery



1989 Test Scores by Racial/Ethnic Group
Basic Battery



1989 Test Scores by Special Education Category
Basic Battery



General Summary of Findings
Basic Battery

Sex:

Average Basic Battery scores were higher for females than for males at all grade levels tested. Differences ranged from a low of 1.5 NCEs at grades 3 and 11 to a high of 4.9 NCEs at grade 7. The greatest differences between the average Basic Battery scores of males and females occurred at grades 5-8.

Females performed above the national norm of 50.0 at all grade levels tested while males performed above the national norm only at grades 2, 3, 4, and 11.

Consistently across the grades, a higher percentage of female students received basic battery scores in the highest quartile than did male students. At each of the grades tested, a higher percentage of male students received basic battery scores in the lowest quartile than did female students.

Race:

The racial/ethnic categories used were White, Black, Hispanic, American Indian/Alaskan Native, and Asian/Pacific Islander. Of those students completing the Basic Battery of the Stanford 8, 61.6% were White, 22.4% were Black, 2.0% were Hispanic, 1.3% were Asian, and 0.1% were Indian. Students with unknown racial classifications comprised 12.7% of the students completing the Basic Battery.

The White and Asian/Pacific Islander groups performed above the national norm at all grades tested. Although the number of students classified as American Indian/Alaskan Native was small, this group scored above the national norm at grades 1, 2, 5, and 6. The Black and Hispanic groups scored below the national norm at all grades tested.

Average Basic Battery scores for the Asian/Pacific Islander group exceeded the average scores for all other racial/ethnic groups at all grades tested. The White group scored higher than the Black, Hispanic, and Indian groups at all grades tested except grade 6. Although the number of students classified as Indian is small, average scores for this group exceeded average scores of the Black and Hispanic groups at 7 of the 9 grades tested. The Hispanic group scored higher than the Black group in grades 1, 2, and 3 by approximately 1 NCE. The Black group scored higher than the Hispanic group in grades 4-8 and 11 with the least difference noted in grade 4 (.8 NCE) and the greatest difference noted in grade 5 (2.5 NCEs).

While nationwide 50% of all students tested would be expected to score above the national median, the percentage of Asian students in Delaware scoring above the national median ranged from a low of 66.7% at grade 11 to a high of 82.3% at grade 5. The percentage of White students scoring above the national median ranged from a low of 56.3% at grade 1 to a high of 64.3% at grade 2.

The percentages of Black and Hispanic students scoring above the national median were lower than the 50% expected of all students tested nationwide. The percentage of Black students scoring above the national median ranged from a low of 25.6% at grade 7 to a high of 33.1% at grade 2. The percentage of Hispanic students scoring in the top two quartiles ranged from a high of 36.7% at grade 2 to a low of 20.0% at grade 11. The percentage of Hispanic students scoring above the national median became smaller as students reached the higher grades.

Special Education/Handicapping Category:

Since the majority of Delaware special education students included in the Delaware Educational Assessment Program are classified as learning disabled (LD), socially-emotionally maladjusted (SEM), or educable mentally handicapped (EMH), average scores are reported only for these three categories. None of these categories of special education students scored above the national average of 50.0. The average Basic Battery scores for SEM students exceeded the scores of both EMH and LD students except at grade 1. Scores for the EMH group exceeded those of the LD group at grades 1-4 and 8 while scores for the LD group were higher at grades 5-7 and 11. Generally, Basic Battery scores for all categories tended to be highest in the early grades.

The percentages of EMH, SEM, and LD students scoring above the national median were consistently below the 50% expected of all students tested nationwide. In each of the three special education categories, a higher percentage of students scored in the top two quartiles in the early grades. Also, when compared with LD students, higher percentages of EMH and SEM students consistently scored above the national median.

Chapter I Status:

Average Basic Battery scores for Chapter I students were below the national norm at all grades tested. They were also consistently below the average scores received by both regular and combined students statewide. The average scores for Chapter I students were highest at grades 2-4.

A relatively small percentage of Chapter I students scored above the national median. Generally, a greater percentage of Chapter I students in the early grades scored in the top two quartiles. The percentage of Chapter I students scoring above the national median ranged from a low of 3.1% at grade 11 to a high of 19.3% at grade 2.

Analysis By Variables By Grade

Reading, Language, Mathematics and Thinking Skills

Spring 1989

ANALYSIS BY VARIABLES

Grade 1

	Reading			Language			Math		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE									
Regular	**7803**	**95.4**	**49.2**	**7992**	**94.8**	**51.4**	**7931**	**94.8**	**51.8**
Combined	**8181**	**100.0**	**48.4**	**8428**	**100.0**	**50.3**	**8368**	**100.0**	**50.7**
Sex									
Male	4233	51.7	47.3	4385	52.0	48.8	4357	52.1	51.3
Female	3947	48.3	49.5	4042	48.0	52.0	4010	47.9	50.2
Racial/Ethnic									
White	4866	59.5	52.1	4974	59.0	55.3	4946	59.1	55.4
Black	1981	24.2	39.4	2072	24.6	39.6	2034	24.3	40.0
Hispanic	178	2.2	40.7	181	2.1	40.0	207	2.5	41.3
Asian	103	1.3	59.9	102	1.2	59.9	103	1.2	61.5
Indian	9	0.1	51.8	9	0.1	51.0	9	0.1	47.4
Unknown	1044	12.8	48.0	1090	12.9	49.1	1069	12.8	50.3
Special Education									
EMH	133	1.6	32.3	151	1.8	33.7	145	1.7	33.9
SEM	24	.3	30.4	27	.3	33.6	25	.3	33.4
LD	214	2.6	29.8	252	3.0	28.0	259	3.1	30.9
Chapter I Program									
Chapter I Students	1767	21.6	33.9	1887	22.4	35.9	1857	22.2	36.6

ANALYSIS BY VARIABLES

Grade 2

	Reading			Language			Math		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE									
Regular	**6981**	**93.4**	**54.1**	**7217**	**92.7**	**57.0**	**7169**	**92.4**	**54.7**
Combined	**7473**	**100.0**	**52.4**	**7783**	**100.0**	**55.3**	**7760**	**100.0**	**52.9**
Sex									
Male	3755	50.2	51.0	3922	50.4	53.8	3918	50.5	53.6
Female	3718	49.8	53.8	3861	49.6	56.8	3842	49.5	52.1
Racial/Ethnic									
White	4623	61.9	56.5	4791	61.6	59.7	4780	61.6	57.3
Black	1706	22.8	42.3	1805	23.2	44.9	1802	23.2	41.7
Hispanic	166	2.2	42.6	177	2.3	45.1	174	2.2	46.4
Asian	87	1.2	65.2	86	1.1	64.4	87	1.1	68.6
Indian	11	0.1	50.8	11	0.1	63.5	11	0.1	49.5
Unknown	880	11.8	51.0	913	11.7	53.3	906	11.7	51.3
Special Education									
EMH	110	1.5	28.9	143	1.8	32.6	148	1.9	28.9
SEM	46	0.6	36.0	48	0.6	40.0	49	0.6	34.9
LD	332	4.4	26.7	371	4.8	32.5	390	5.0	30.4
Chapter I Program									
Chapter I Students	1177	15.8	37.7	1250	16.1	42.6	1249	16.1	40.4

ANALYSIS BY VARIABLES

Grade 3

	Reading			Language			Math			Thinking Skills		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE												
Regular	**6524**	**91.6**	**55.0**	**6599**	**91.2**	**56.8**	**6616**	**91.0**	**54.4**	**6499**	**91.7**	**55.0**
Combined	**7120**	**100.0**	**52.8**	**7236**	**100.0**	**54.6**	**7268**	**100.0**	**52.0**	**7089**	**100.0**	**52.8**
Sex												
Male	3645	51.2	51.9	3711	51.3	52.6	3741	51.5	52.1	3632	51.2	52.1
Female	3475	48.8	53.7	3525	48.7	56.6	3527	48.5	51.9	3457	48.8	53.6
Racial/Ethnic												
White	4421	62.1	57.0	4487	62.0	58.5	4515	62.1	55.9	4419	62.3	57.0
Black	1650	23.2	41.7	1702	23.5	44.7	1698	23.4	41.4	1644	23.2	41.9
Hispanic	141	2.0	41.3	136	1.9	45.7	141	1.9	42.8	142	2.0	42.2
Asian	84	1.2	61.1	83	1.1	64.2	86	1.2	66.5	82	1.2	62.8
Indian	8	0.1	41.2	7	0.1	46.4	8	0.1	44.4	8	0.1	40.5
Unknown	816	11.5	53.3	821	11.3	54.3	820	11.3	52.9	794	11.2	53.2
Special Education												
EMH	117	1.6	30.4	134	1.9	32.0	133	1.8	28.2	118	1.7	31.1
SEM	55	0.8	32.9	58	0.8	36.9	58	0.8	28.7	56	0.8	31.8
LD	416	5.8	26.5	436	6.0	29.9	453	6.2	27.3	409	5.8	28.6
Chapter I Program												
Chapter I Students	931	13.1	36.0	970	13.4	38.9	955	13.1	36.8	918	12.9	36.6

ANALYSIS BY VARIABLES

Grade 4

	Reading			Language			Math			Thinking Skills		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE												
Regular	**6464**	**90.4**	**53.4**	**6429**	**90.4**	**55.9**	**6420**	**90.4**	**53.4**	**6354**	**91.0**	**53.7**
Combined	**7150**	**100.0**	**50.6**	**7111**	**100.0**	**53.3**	**7099**	**100.0**	**50.8**	**6984**	**100.0**	**51.2**
Sex												
Male	3619	50.6	49.3	3610	50.8	50.7	3600	50.7	49.7	3537	50.6	50.5
Female	3531	49.4	51.9	3501	49.2	56.0	3499	49.3	51.9	3447	49.4	52.0
Racial/Ethnic												
White	4320	60.4	55.4	4293	60.4	57.4	4294	60.5	54.4	4232	60.6	55.8
Black	1750	24.5	39.3	1737	24.4	43.9	1722	24.3	40.9	1691	24.2	40.1
Hispanic	168	2.3	38.1	174	2.4	43.7	175	2.5	40.3	165	2.4	39.2
Asian	75	1.0	62.4	74	1.0	70.0	75	1.1	73.1	74	1.1	65.9
Indian	8	0.1	34.2	8	0.1	36.9	8	0.1	37.5	8	0.1	36.3
Unknown	829	11.6	51.1	825	11.6	52.9	825	11.6	53.0	814	11.7	51.7
Special Education												
EMH	136	1.9	24.3	133	1.9	29.6	127	1.8	25.8	122	1.7	25.1
SEM	75	1.0	28.9	74	1.0	32.7	74	1.0	27.6	69	1.0	28.6
LD	466	6.5	23.0	466	6.6	27.9	468	6.6	25.1	432	6.2	25.1
Chapter I Program												
Chapter I Students	932	13.0	33.7	934	13.1	38.5	922	13.0	36.5	904	12.9	34.4

ANALYSIS BY VARIABLES

Grade 5

	Reading			Language			Math			Thinking Skills		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE												
Regular	**6048**	**90.5**	**53.9**	**5972**	**90.2**	**55.2**	**6008**	**90.6**	**52.5**	**5956**	**91.0**	**53.3**
Combined	**6683**	**100.0**	**51.2**	**6621**	**100.0**	**52.2**	**6631**	**100.0**	**49.7**	**6544**	**100.0**	**50.6**
Sex												
Male	3446	51.6	49.9	3414	51.6	49.1	3409	51.4	48.0	3359	51.3	49.1
Female	3237	48.4	52.6	3207	48.4	55.6	3222	48.6	51.4	3185	48.7	52.2
Racial/Ethnic												
White	4032	60.3	56.6	3995	60.3	57.4	3999	60.3	54.8	3962	60.5	56.3
Black	1610	24.1	40.3	1596	24.1	41.9	1601	24.1	38.5	1570	24.0	38.7
Hispanic	148	2.2	37.3	149	2.3	39.6	152	2.3	36.8	144	2.2	36.8
Asian	87	1.3	64.5	85	1.3	67.1	87	1.3	71.1	87	1.3	67.5
Indian	6	0.1	49.3	6	0.1	55.7	6	0.1	52.7	6	0.1	51.2
Unknown	800	12.0	47.4	790	11.9	47.6	786	11.9	46.4	775	11.8	46.2
Special Education												
EMH	113	1.7	22.0	112	1.7	20.3	108	1.6	19.3	102	1.6	19.0
SEM	69	1.0	32.2	75	1.1	31.4	69	1.0	23.8	64	1.0	30.4
LD	450	6.7	26.0	459	6.9	25.1	443	6.7	22.6	419	6.4	23.6
Chapter I Program												
Chapter I Students	638	9.5	34.0	635	9.6	35.4	648	9.8	32.4	625	9.6	31.5

ANALYSIS BY VARIABLES

Grade 6

	Reading			Language			Math			Thinking Skills		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE												
Regular	**5928**	**90.6**	**53.8**	**5881**	**90.6**	**54.3**	**5865**	**90.6**	**51.5**	**5757**	**90.9**	**52.6**
Combined	**6541**	**100.0**	**51.2**	**6489**	**100.0**	**51.8**	**6477**	**100.0**	**48.7**	**6336**	**100.0**	**49.8**
Sex												
Male	3305	50.5	49.6	3269	50.4	48.6	3264	50.4	46.8	3177	50.1	47.8
Female	3236	49.5	52.8	3220	49.6	55.1	3213	49.6	50.7	3159	49.9	51.8
Racial/Ethnic												
White	3994	61.1	56.0	3963	61.1	55.8	3954	61.0	53.0	3899	61.5	54.8
Black	1488	22.7	39.8	1474	22.7	42.1	1475	22.8	38.1	1415	22.3	37.8
Hispanic	122	1.9	37.3	125	1.9	41.0	125	1.9	37.8	118	1.9	36.1
Asian	78	1.2	63.2	77	1.2	65.4	79	1.2	71.3	78	1.2	64.6
Indian	6	0.1	60.1	6	0.1	65.0	6	0.1	62.8	6	0.1	57.6
Unknown	853	13.0	49.1	844	13.0	50.3	838	12.9	46.8	820	12.9	47.4
Special Education												
EMH	105	1.6	23.9	105	1.6	24.1	105	1.6	19.3	98	1.5	20.7
SEM	80	1.2	29.6	81	1.2	27.5	78	1.2	22.6	72	1.1	25.7
LD	423	6.5	25.1	418	6.4	27.7	424	6.5	22.5	405	6.4	22.0
Chapter I Program												
Chapter I Students	474	7.2	33.3	472	7.3	37.4	468	7.2	34.6	454	7.2	32.1

ANALYSIS BY VARIABLES

Grade 7

	Reading			Language			Math			Thinking Skills		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE												
Regular	**5844**	**90.5**	**53.4**	**5839**	**90.5**	**53.0**	**5789**	**90.9**	**52.3**	**5572**	**91.2**	**51.8**
Combined	**6458**	**100.0**	**50.7**	**6452**	**100.0**	**50.3**	**6367**	**100.0**	**49.7**	**6108**	**100.0**	**49.4**
Sex												
Male	3342	51.7	49.2	3331	51.6	46.9	3274	51.4	47.8	3139	51.4	47.7
Female	3116	48.3	52.4	3121	48.4	54.0	3093	48.6	51.7	2969	49.6	51.2
Racial/Ethnic												
White	3786	58.6	55.1	3787	58.7	54.6	3737	58.7	53.6	3611	59.1	53.8
Black	1505	23.3	40.2	1502	23.3	40.4	1479	23.2	39.7	1396	22.9	38.4
Hispanic	127	2.0	37.1	129	2.0	37.8	129	2.0	40.5	120	2.0	37.4
Asian	93	1.4	64.6	93	1.4	66.4	93	1.5	72.1	92	1.5	66.4
Indian	4	0.1	*	5	0.1	49.2	4	0.1	*	4	0.1	*
Unknown	943	14.6	50.3	936	14.5	49.1	925	14.5	49.2	885	14.5	48.9
Special Education												
EMH	92	1.4	22.8	84	1.3	23.6	77	1.2	20.9	72	1.2	22.1
SEM	87	1.3	31.0	93	1.4	28.9	90	1.4	23.3	77	1.3	28.4
LD	429	6.6	24.5	430	6.7	24.2	405	6.4	23.8	382	6.3	23.9
Chapter I Program												
Chapter I Students	197	3.1	33.6	205	3.2	35.1	197	3.1	34.8	189	3.1	32.5

* Mean NCE not reported if number of students tested is less than 5 for reasons of student privacy.

ANALYSIS BY VARIABLES

Grade 8

	Reading			Language			Math			Thinking Skills		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE												
Regular	**5712**	**90.8**	**53.8**	**5713**	**91.0**	**54.2**	**5659**	**91.2**	**53.2**	**5445**	**91.7**	**53.1**
Combined	**6288**	**100.0**	**51.0**	**6280**	**100.0**	**51.5**	**6206**	**100.0**	**50.5**	**5937**	**100.0**	**50.5**
Sex												
Male	3184	50.6	49.8	3183	50.7	47.7	3139	50.6	49.4	2992	50.4	50.0
Female	3104	49.4	52.2	3097	49.3	55.5	3067	49.4	51.7	2945	49.6	51.1
Racial/Ethnic												
White	3948	62.8	54.9	3940	62.7	55.0	3889	62.7	53.8	3755	63.2	54.5
Black	1306	20.8	40.7	1310	20.9	42.6	1279	20.6	40.3	1205	20.3	38.9
Hispanic	117	1.9	38.5	115	1.8	40.7	119	1.9	39.5	111	1.9	39.0
Asian	83	1.3	62.1	84	1.3	65.0	85	1.4	70.4	83	1.4	66.6
Indian	6	0.1	44.7	6	0.1	40.8	6	0.1	42.0	5	0.1	38.4
Unknown	828	13.2	49.1	825	13.1	49.4	828	13.3	50.5	778	13.1	49.0
Special Education												
EMH	87	1.4	21.5	89	1.4	24.3	84	1.4	21.9	74	1.2	20.8
SEM	79	1.3	26.6	79	1.3	27.2	78	1.3	23.2	62	1.0	25.8
LD	404	6.4	22.5	393	6.3	23.5	380	6.1	22.7	351	5.9	22.1
Chapter I Program												
Chapter I Students	139	2.2	34.3	137	2.2	37.2	140	2.3	38.1	132	2.2	34.9

ANALYSIS BY VARIABLES

Grade 11

	Reading			Language			Math			Thinking Skills		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE												
Regular	**4820**	**94.6**	**53.2**	**4820**	**94.7**	**53.2**	**4828**	**94.6**	**52.7**	**4618**	**94.8**	**53.4**
Combined	**5093**	**100.0**	**51.6**	**5089**	**100.0**	**51.7**	**5103**	**100.0**	**51.3**	**4871**	**100.0**	**51.9**
Sex												
Male	2465	48.4	51.4	2456	48.3	48.9	2459	48.2	53.3	2343	48.1	53.9
Female	2628	51.6	51.8	2633	51.7	54.2	2644	51.8	49.4	2528	51.9	50.1
Racial/Ethnic												
White	3267	64.1	55.1	3272	64.3	54.7	3271	64.1	54.3	3147	64.6	55.6
Black	898	17.6	40.5	894	17.6	41.7	904	17.7	40.9	853	17.5	39.2
Hispanic	73	1.4	38.6	71	1.4	39.2	72	1.4	41.1	68	1.4	38.8
Asian	86	1.7	56.5	85	1.7	57.2	87	1.7	65.2	85	1.7	58.3
Indian	5	0.1	47.2	5	0.1	52.9	5	0.1	53.3	5	0.1	49.6
Unknown	764	15.0	50.5	762	15.0	50.7	764	15.0	49.7	713	14.6	51.5
Special Education												
EMH	57	1.1	20.2	58	1.1	20.4	58	1.1	23.8	56	1.1	21.0
SEM	42	0.8	27.0	43	0.8	28.2	44	0.9	26.4	39	0.8	27.9
LD	171	3.4	22.8	165	3.2	25.3	170	3.3	25.5	155	3.2	24.6
Chapter I Program												
Chapter I Students	33	0.6	30.9	35	0.7	33.0	34	0.7	38.5	32	0.7	33.5

ANALYSIS BY VARIABLES

High School Program and Post High School Plans
Grade 11

	Reading			Language			Math			Thinking Skills		
	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE	Number	%	Mean NCE
STATE												
Regular	**4820**	**94.6**	**53.2**	**4820**	**94.7**	**53.2**	**4828**	**94.6**	**52.7**	**4618**	**94.8**	**53.4**
Combined	**5093**	**100.0**	**51.6**	**5089**	**100.0**	**51.7**	**5103**	**100.0**	**51.3**	**4871**	**100.0**	**51.9**
High School Program												
College Preparatory	2914	57	60.2	2905	57	59.8	2907	57	59.9	2810	58	60.7
Vocational	1173	23	40.9	1173	23	41.1	1183	23	41.4	1123	23	40.0
General	888	17	38.6	895	18	39.7	899	18	37.5	840	17	37.3
Not Known	118	2	44.5	116	2	45.7	114	2	42.7	98	2	43.5
Post High School Plans												
Four Year College Degree	2508	49	60.7	2505	49	60.5	2505	49	60.7	2439	50	61.3
Two Year College Degree	478	9	44.1	482	9	44.9	484	9	41.7	460	9	43.2
Employment	574	11	38.7	562	11	39.5	574	11	38.6	531	11	37.7
Military	284	6	42.4	285	6	40.0	283	6	43.3	269	6	43.0
Other	181	4	43.5	181	4	44.0	180	4	41.4	170	3	43.4
Undecided	888	17	44.8	896	18	45.1	899	18	44.2	844	17	44.6
Not Known	180	4	43.3	178	3	44.0	178	3	43.1	158	3	41.2

General Summary of Findings

Performance of Delaware students as a whole (regular and combined) compared favorably with national norms across all subject areas and all grades tested. By disaggregating the state level data by sex, race, special education category, Chapter I status, high school program, and post high school plans, it is possible to identify the various subgroups of Delaware's public school population that have either strengths or weaknesses in the basic skill areas of reading, language, or mathematics. The patterns of achievement in these content areas and in the area of higher order thinking skills for these subgroups of pupils follow below.

Sex:

Average scores of female students exceeded those of male students in reading and language at all grade levels tested. While the average mathematics scores of females exceeded those of males at most grade levels, males scored higher than females in grades 1, 2, and 11. Females scored higher than males on those test items designed to measure higher order thinking skills at all grades except 11.

Across all grades, females consistently received their highest average score in language. Average reading scores for females exceeded average mathematics scores at all grades except 1 and 4. The same sorts of generalizations are difficult to make for male students in Delaware. Relative to the other content areas, reading was a strength for male students at grades 5-8 where average scores exceed those in mathematics and language. At grades 1-4, however, reading was a relative weakness, being exceeded by average scores in both language and mathematics. Males in the early grades, i.e. grades 2-4, received their highest scores in language. Males in grades 7-8 and 11 received their lowest scores in language. Mathematics was a relative strength in grades 1 and 11 and a relative weakness in grades 5 and 6.

Race:

The Asian/Pacific Islander and White groups performed above the national norm in all content areas across all grade levels tested. The average scores of the Asian/Pacific Islander group exceeded those of all other racial/ethnic groups for all content areas at all grades tested. The White group generally scored higher than the Black, Hispanic, and Indian groups except at grade 6 (all content areas) and grade 2 (language) where the average scores for the Indian group were higher.

Average scores for the Black and Hispanic groups were below the national norm in all content areas across all grades tested. The Hispanic group generally scored higher than the Black group in reading, language, and mathematics at grades 1-3 with the exception of reading at grade 3. Beginning with grade 4, the Black group generally scored higher than the Hispanic group with the exception of mathematics at grades 7 and 11 and thinking skills at grade 8.

Across all grades tested, the Asian/Pacific Islander group received their highest average score in mathematics. Average language scores exceeded average reading scores at all grades except 1 and 2. In contrast, relative to the other content areas, mathematics was a relative weakness for the White group, being exceeded by both reading and language scores at grades 3-8 and 11. Generally, the White group received their highest scores in language at the early grades; reading was a relative strength at the upper grades.

At all grades except 1, the Black group received their highest average score in language. Reading scores for the Black group exceeded mathematics scores at 6

of the 9 grades tested. Therefore, as with the White group, mathematics was a relative weakness for the Black group. Relative to the other content areas, the Hispanic group tended to score somewhat higher in mathematics than the Black or White groups. Average mathematics scores exceeded scores in both reading and language at grades 1, 2, 7, and 11. Language scores exceeded reading and mathematics scores in the other 5 grades tested. Reading was the relative weakness of the Hispanic group with 7 of the 9 grades tested receiving their lowest scores in this area.

Special Education/Handicapping Category:

Across grades and content areas, the average scores of the SEM group generally exceeded those of the LD and EMH groups. The only exceptions were at grade 1 (all content areas), grade 6 (language), and grade 7 (mathematics). Average scores for the EMH group generally exceeded those for the LD group in all content areas at grades 1-4; average scores for the LD group generally exceeded those for the EMH group in all content areas at grades 5-8 and 11. Average scores for all three special education groups were below the national norm in all content areas at all grades tested.

Each of the three special education groups tended to receive its highest average score in language. Exceptions to this occurred at grades 1 and 11 where EMH and LD groups received their highest average score in mathematics; average reading scores were highest for all three categories of special education students in grade 5, for SEM students in grade 6, and for SEM and LD students in grade 7. Relative to the other content areas tested, reading tended to be the weakest area for both the EMH and LD groups at 5 of the 9 grades tested. In only one case (the LD group at grade 1) was the average language score the lowest. Mathematics was a relative weakness for the SEM group with average reading and language scores exceeding mathematics scores at 8 of the 9 grades tested.

Chapter I Status:

The average scores of Chapter I students were below the national norm at all grades tested in all content areas. Similarly, Chapter I students as a group consistently scored below both regular and combined students statewide. At 6 of the 9 grades tested, Chapter I students received their highest average score in language. At grades 1, 8, and 11, their highest average score was in mathematics. Reading was a weakness relative to the other content areas for Chapter I students with 6 of the 9 grades tested receiving their lowest score in reading. Chapter I students in grades 5, 6, and 7 received their lowest average score in Thinking Skills.

Program/Post High School Plans:

Grade 11 students were asked to categorize their high school program as either college preparatory, vocational, or general. For all of the content areas assessed, the average scores of students classifying themselves as college preparatory exceeded those of students classifying themselves as vocational or general. Vocational students also consistently scored higher than students enrolled in a general program of instruction. As a group, college preparatory students received their highest average score in thinking skills indicating their ability to make inferences, draw conclusions, determine relationships, predict outcomes, classify, and evaluate. In contrast, both the vocational and general groups received their lowest average score in thinking skills.

Grade 11 students were also asked to specify their post high school plans. As a group, students planning to pursue a four year college degree consistently scored higher than students planning to pursue a two year college degree, employment, or military service. A sizable proportion of

grade 11 students (17%-18%) indicated they were undecided about their post high school plans. Across the content areas, this undecided group of students consistently scored higher than those students planning to seek a two year college degree or military or civilian employment. The highest average score for those groups seeking either civilian employment or a two year college degree was in language. Relative to the other content areas tested, language was a weakness for students planning to pursue a four year degree or a job in the military. Those students planning to seek a four year college degree received their highest average score in thinking skills; those planning to enter military service received their highest score in mathematics.

In summary, the data in this Appendix to the Statewide Test Results Summary Report, Spring 1989 are a disaggregation of the state level test results designed to provide both educators and the general public with an indication of how various subgroups of the Delaware public school student population performed on the statewide tests. The identification of the strengths and weaknesses of student groups by sex, race, special education category, Chapter I status, high school program, and post high school plans will hopefully provide policymakers with one more tool to use in implementing improvement within Delaware schools.